

**Amendments to the Drawings:**

The attached sheets of drawings include replacement sheets for FIG. 1 (now labeled FIG. 1A) and FIG. 5 (now labeled as "PRIOR ART"). These sheets replace the original sheets. The attached sheets also include a new FIG. 1B.

**Remarks/Arguments:**

Claims 1-3 are pending and stand rejected.

By this Amendment, the specification has been amended, a new FIG. 1B and new claim 4 have been added.

No new matter is presented by the specification changes, new FIG. 1B and new claim 4. Support for the specification changes and new figure and new claim can be found throughout the original specification and, for example, in the original specification at page 5, lines 19-23, and FIG. 2.

**Provisional Rejection of Claims 1-3 under the Judicially Created Ground of Non-Statutory Obviousness-Type Double Patenting**

In the Office Action, at item 1, claims 1-3 are provisionally rejected on the ground on nonstatutory obviousness-type double patenting as unpatentable over claims 1 and 3-4 of co-pending U.S. Application No.: 10/549,771 (hereafter referred to as the '771 application) in view of Kiyotaka et al. (JP 08-1002993, hereafter referred to as Kiyotaka).

It is submitted that because this is a provisional rejection, Applicant is not required to substantively respond to this provisional rejection until the '771 Application issues and the rejection is, thus, no longer provisional.

**Drawing Objections**

In the Office Action, at item 3, the drawings are objected to under 37 C.F.R. § 1.83(a) for not showing the subject matter of claim 3.

Applicant has included a new sheet including drawing FIG. 1B to overcome this objection and has provided a replacement sheet including FIG. 1 relabeled as FIG. 1A to conform to the new drawing FIG. 1B. Support for the new drawing Fig. 1B can be found in the original specification at page 5, lines 19-23.

In the Office Action, at item 4, FIG. 5 is objected to because it should be designated by a legend such as -- PRIOR ART --.

Applicant has amended FIG. 5 to include the legend -- PRIOR ART --.

Entry of the new drawing FIG. 1B and reconsideration of the drawing objections is respectfully requested.

**Rejection of Claims 1-3 under 35 U.S.C. § 103(a)**

In the Office Action, at item 6, claims 1-3 are rejected under 35 U.S.C. § 103(a) as unpatentable over Funahashi et al. (U.S. Patent Publication No. 2003/0185415, hereafter referred to as Funahashi) in view of Kiyotaka.

This rejection is respectfully traversed.

Claim 1 is directed to a loud speaker, and recites:

...a magnetic circuit disposed inside the frame...

...a diaphragm coupled to the voice coil unit directly or indirectly at its inner circumferential end part and to the frame at its outer circumferential end part via a first edge...

...a suspension holder coupled to a rear surface of the diaphragm and coupled to the frame at its one end via a second edge...

...an edge diameter in a cross section of the second edge is set to be larger than an edge diameter in a cross section of the first edge.

That is, the magnetic circuit is disposed inside the frame and the suspension holder is coupled to the rear surface of the diaphragm and to the frame at one end via a second edge. The above recited structure may reduce harmonic distortion and reduce or eliminate compliance differences between the first and second edges and may be accomplished with a configuration of the first and second edges coupled to the suspension holder without the need for a damper.

**Funahashi Reference**

Funahashi discloses a loud speaker with a magnetic circuit outside of the frame 19. More particularly, the loud speaker of Funahashi includes magnetic circuit 9 formed of ring

shape magnet 10, ring-shaped plate 11, disc-shaped yoke 12 and columnar pole 13. (See Funahashi at paragraph [0040].) The Funahashi loud speaker also includes a frame 19, which has a disc shape and is linked with an outer peripheral part of diaphragm 17. The Examiner corresponds the magnetic circuit 9 of Funahashi to the magnetic circuit recited in claim 1 and the frame 19 of Funahashi to the frame recited in claim 1. But, as clearly shown in all the cross sectional views of a loud speakers of Funahashi, the magnetic circuit 9 is outside of the frame 19. That is Funahashi teaches away from the present invention recited in claim 1.

### **Kiyotaka Reference**

Kiyotaka is a Japanese reference and the only English language translation is of the Japanese Abstract. Kiyotaka is directed to an inverted dome speaker. The Abstract of Kiyotaka discloses "a microbiological cellulose is disaggregated in water and paper-made to have a prescribed thickness by using a paper making net. In the case of paper-making process, the material is made composite by blending a high elastic fiber such as highly elastic carbon fiber or aramid fiber or a regulator with proper property such as flaky mica to the cellulose to obtain a diaphragm material with a desired characteristic. In the case of assembling, a voice coil bobbin 2a and a damper 2b are formed integrally." The bobbin 2a in Kiyotaka is "provided in a magnetic gap 8 and an outer circumferential part of the damper 2B is adhered to a frame 9. The inverted dome diaphragm 1 made of the microbiological cellulose has a high Young's modulus and an excellent internal loss." Purportedly, in Kiyotaka, "the strength and the reliability for a high input signal are thus improved." (See the Abstract of Kiyotaka.) It is clear from FIG. 1 of Kiyotaka, that numerical reference 2b is a damper, which does not improve compliance but instead increases the strength of the Kiyotaka structure. Applicant submits that it is beyond one of ordinary skill in the art to combine the teachings of Kiyotaka with those of Funahashi in order to produce the present invention recited in claim 1.

Accordingly, claim 1 is submitted to be allowable over Funahashi in view of Kiyotaka for at least the reasons set forth above.

### **Claims 2-3**

Claim 2-3, which include all of the limitations of claim 1, are submitted to be allowable over Funahashi in view of Kiyotaka for at the least the same reasons as set forth regarding claim 1.

#### **New Claim 4**

New claim 4, which includes all of the limitations of claim 1, is submitted to be allowable over Funahashi in view of Kiyotaka for at least the same reasons as claim 1.

New claim 4 Includes patentable distinctions beyond those of claim 1, namely "a ratio of the edge diameter of the second edge to the edge diameter of the first edge is in a range of greater than 1.0 and less than or equal to 1.5."

Consideration and allowance is respectfully requested.

#### **Conclusion**

In view of the specification amendments, new drawing figure and new claim, Applicant submits the application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

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Attachments: Figures 1A, 1B and 5 (3 sheets)

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